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Information Technology

MEMORANDUM

TO: Jerry Ewers – Acting City Administrator
Nancy Lueck – Finance Director

FROM: John Kreuzenstein – Information Technology Manager

DATE: November 8, 2019

SUBJECT: City Council In-Depth Agenda Item – Server Virtualization Project

INTRODUCTION:

Currently the City of Muscatine's data server infrastructure consist of approximately 15 physical servers spread throughout the organization. One of these servers is running a network operating system that will reach its end of life in January 2020.

Most organizations that have a server infrastructure the size of the City of Muscatine's have switched to virtual servers which have a number of advantages including, but not limited to:

Long-term cost reduction	Security	Reduced downtime
Centralized management	Load balancing	Hardware independence
Simplified and space saving facilities	Saving electrical energy	Support and maintenance simplified
Greater availability and easier recovery in case of disaster	Migrating servers to new hardware transparently	Facility for running backups

BACKGROUND:

During the last budget session with City Council, IT staff spoke with Council about the timing of upcoming IT projects and associated costs. At that time the IT staff thought that the appropriate action would be to complete other tasks in the current fiscal year, including finding a partner for IT consultation, and visit the need for virtualization as a budget request as part of the FY 2020/2021 budget. However since we currently have one server to replace before January at an estimated cost of \$7,000, it is recommended the City proceed with the virtualization project immediately.

**"I remember Muscatine for its sunsets. I have never seen any
on either side of the ocean that equaled them" — Mark Twain**

Estimated costs for the project are as follows:

Servers and storage area network (SAN)	\$60,000.00
Virtualizations Software	\$4,000.00
Consulting and Engineering Services	\$9,000.00
1 Year Cloud Based Backup	<u>\$12,000.00</u>
Total:	\$85,000.00

Funding Recommendation:

Unused budgeted capital balance from Network Switch upgrade	\$25,000.00
Available funds in the Computer Replacement Fund	<u>\$60,000.00</u>
Total:	\$85,000.00

RECOMMENDATION/RATIONAL:

The City IT Department would like to request consensus from City Council to proceed with soliciting bids from qualified vendors for the computer hardware (servers and SAN). Once bids are received, the City Council will be requested to authorized to issuance of purchase orders to the most responsive and responsible bidders.